PERMIT TO OPERATE EVALUATION

Applicant's Name	MADISON-GRAHAM COLORGRAPHICS, INC.
Company ID	1379
Mailing Address	150 N. MYERS STREET, LOS ANGELES, CA 90033
Equipment Address	SAME AS ABOVE

EQUIPMENT DESCRIPTION:

A/N 498414:

TITLE V PERMIT REVISION, DE MINIMIS SIGNIFICANT

A/N 498415 (PO, no PC, replacement of press under PO #F72166, A/N 432788):

LITHOGRAPHIC PRINTING SYSTEM CONSISTING OF:

1. LITHOGRAPHIC PRINTING PRESS, HEIDELBERG, MODEL NO. XL 105-8-AQ, 8-COLOR PLUS COATER, 40-INCH WIDE SHEET FED.

2. INFRARED DRYER, 125 KW TOTAL.

A/N 498416 (PO, no PC, New construction):

LITHOGRAPHIC PRINTING SYSTEM CONSISTING OF:

1. LITHOGRAPHIC PRINTING PRESS, HEIDELBERG, MODEL NO. CD102-8-AQ-UV, 8-COLOR PLUS COATER, 40-INCH SHEET WIDTH.

2. INFRARED DRYER, 220 KW TOTAL.

3. UV DRYER, 60 KW TOTAL.

A/N 498417 (PO, no PC, replacement of press under PO #F57126, A/N 402452):

LITHOGRAPHIC PRINTING SYSTEM, CONSISTING OF:

1. LITHOGRAPHIC PRINTING PRESS, HEIDELBERG, MODEL NO. XL105-8-AQ-UV, 8-COLOR PLUS COATER, 40-INCH SHEET WIDTH.

2. INFRARED DRYER, 125 KW TOTAL

BACKGROUND:

Madison-Graham ColorGraphics, Inc. filed the above applications in May 2009 for the construction of three new Heidelberg, non-heat set lithographic printing presses. However, the facilty began operating all three presses prior to November 2009. Therefore, all three will be issued permits to operate. The facility will be billed for the additional 50% permitting fee.

The printing press under A/N 498415 was a replacement of the Komori lithographic printing press under A/N 432788 (PO #F72166). The printing press under A/N 498417 was a replacement of the Komori lithographic printing press under A/N 402452 (PO #F57126). Both were functionally identical replacements. See the summary table below:

A/N	Previous permit (previous A/N)	Description
498414	-	Title V permit revision, de minimis significant.
498415	F72166 432788	Heidelberg, lithographic printing press, IR dry; functionally identical replacement.
498416	n/a	Heidelberg, lithographic printing press, IR/UV dry; new construction.
498417	F57126 402452	Heidelberg, lithographic printing press, IR dry; functionally identical replacement.

A/N 498414 was filed for the Title V permit revision (de minimis significant). The three presses were added without increasing the existing facility-wide limit of 10,890 pounds of VOC per calendar month on the facility permit. The facility will satisfy public notice requirements prior to the issuance of the permits to operate.

This facility is in the Title V program. This is a de minimis significant permit revision. The latest Title V renewal was issued on March 26, 2006. These applications are part of the 2nd Title V permit revision since then. In addition to the above applications, Madison-Graham submitted A/N 459677 for the operation of a natural gas-fired emergency IC engine (under separate evaluation). A/N 511011 and 512895 were filed for the operation of two new replacement lithographic printing presses (under separate evaluation). A/N 511011 and 512895 and all other applications associated with this 2nd permit revision will be grouped under A/N 498414 for the de mimimis significant permit revision.

In addition, as part of an administrative permit revision, A/N 444084 will be issued a permit to operate to replace the permit to construct for the modification to the regenerative thermal oxidizer (under separate evaluation). Likewise, A/N 465235 will be issued the permit to operate from a permit to construct for the lithographic printing press that replaced the one under A/N 443118. As a result, A/N 443118 will be cancelled (under separate evaluation) and the P/C removed from Section D. See the Reg. XXX evaluation for a summary of this Title V revision (de minimis and administrative)

A review of the Compliance database shows that the facility was most recently inspected in March 2010. The facility was operating in compliance at that time. In addition, there were two public complaints in the past two years, but the facility was found to be in compliance each time and no

further compliance action was taken. Also, no Notices of Violation or Notices to Comply have been issued to this facility in the last two years.

PROCESS DESCRIPTION:

The applicant operates a typical commercial lithographic printing operation at this site. The equipment is used to print such items as brochures, annual reports, and advertising.

In lithographic printing, the image and non-image areas are on the same plane (planographic). The image area is made to be oil receptive and water repellent, while the non-image area is made to be water receptive and oil repellent. The fountain solution (normally comprised of water, alcohol or alcohol substitute, and etch) wets the non-image area, while the ink adheres to the image area. The term offset refers to the fact that the ink is offset from the plate to a rubber blanket, and then from the blanket to the paper.

These three presses are sheet-fed, 8-color, non-heat set presses. The sheet comes directly from the printing press through the coaters and IR and/or UV curing lamps, where the inks are cured.

EMISSIONS and ANALYSIS:

ROG and TOG:

The use of graphic arts materials in this equipment generates ROG and TOG emissions. This facility currently has a facility-wide limit of 10,890 pounds per calendar month. The applicant installed these printing presses with no increase to this facility limit. The applicant estimated average emissions of up to 15 pounds per day (0.63 lb/hr) from the press under A/N 498415, and 19 lbs/day (0.79 lb/hr) from each of the presses under A/Ns 498416-498417. Though the presses would not be expected to exceed these amounts during peak production times, the applicant has requested no equipment specific VOC limits for the three presses, so a Rule 212(g) public notice will be distributed.

Toxic Air Contaminants:

There are toxic air contaminants from these presses from the use of graphic arts materials (no carcinogenic compounds).

According to the MSDS sheets submitted by the applicant, the graphic arts materials used in this equipment include ethylene glycol (CAS no. 107-21-1), ethylene glycol butyl ether (EGBE, CAS no. 111-76-2) and isopropyl alcohol (CAS no. 67-63-0). See the table on the next page.

Compound	Product	Concentration (lbs/gal)	Usage (gal/day)	Uncontrolled Emissions	Total uncontrolled emissions
Ammonia (7664-41-7)	Kelstar AQ20 and AQ122	(17/35)(0.03)(8.61) = 0.13	20	2.51 lb/day 0.31 lb/hr 916 lb/yr	2.51 lb/day 0.31 lb/hr 916 lb/yr
Ethylene glycol (107-21-1)	Starfount SF5096	(0.05)(8.70) = 0.44	4	1.76 lb/day 0.073 lb/hr 642 lbs/yr	1.76 lb/day 0.073 lb/hr 642 lbs/yr
EGBE (111-76-2)	Starfount SF5096	(0.30)(8.70) = 2.61	4	10.4 lb/day 0.43 lb/hr	16.72 lb/day 0.70 lb/hr
	Allied MRC100	(0.10)(6.41) = 0.64	3	1.92 lb/day 0.08 lb/hr	
	Ecolowash EW100	(0.10)(7.34) = 0.73	6	4.4 lb/day 0.18 lb/hr	
Isopropyl Alcohol (67-63-0)	Kelstar AQ122	(0.04)(8.61) = 0.34	20	6.9 lb/day 0.29 lb/hr 2519 lb/yr	13.5 lb/day 0.56 lb/hr 4928 lb/yr
	IPA R0501	(1.0)(6.6) = 6.6	1	6.6 lb/day 0.28 lb/hr 2409 lb/yr	

Note: Above assumes 24 hrs/day and 365 days/yr (worse case).

As shown on the attached Rule 1401 Tier 2 Screening Risk Assessment spreadsheet, the health risk impact of the above emissions will not result in an exceedance of the MICR ($\leq 1 \times 10^{-6}$) or the HIA/HIC (≤ 1.0) thresholds. Therefore, no further analysis is required.

RULES:

RULE 212(c)(1) This section requires a public notice for all new or modified permit units that may emit air contaminants located within 1,000 feet from the outer boundary of a school. This facility is not located within 1,000 feet from the outer boundary of a school. Therefore, public notice will not be required by this section.

RULE 212(c)(2) This section requires a public notice for all new or modified facilities which have on-site emission increases exceeding any of the daily maximums as specified in subparagraph (g). There are no emission increases from this facility as a result of this project since the VOC emissions will be included under the existing facility VOC cap of 10,890 lb/month. Therefore, public notice will not be required by this section.

RULE 212(c)(3) See Rule 1401 evaluation section. The toxic emissions from this equipment do not result in an MICR of more than one-in-a-million or HIA.HIC above 1, therefore public notice will not be required by this section.

RULE 212(g) This section requires a public notice for all new or modified permit units which undergo construction or modifications resulting in an emissions increase exceeding any of the daily maximums as specified in subparagraph

(g). The maximum potential VOC emissions from this equipment are greater than 30 lb/day, therefore, public notice will be required by this section.

RULE 401 Visible emissions are not expected with proper operation of this equipment.

RULE 402 Operation of equipment is not expected to create a nuisance.

RULE 1130 The inks used comply with the limit of 300 g/l in (c)(1). The fountain solution mixture used in these presses (33 g/l) does not exceed 54 g/l, which is below the requirement of 80 g/l in paragraph (c)(2).

RULE 1171 The clean-up materials used for this equipment complies with the VOC limits in subparagraph (c)(1)(D). The blanket/roller wash(es) contain(s) less than the allowed 100 g of VOC/l.

REG. XIII 1303(a): BACT requirements are met by using fountain solution that is (3.8%) less than 8% VOC by volume, and by the use of clean-up materials with VOC less than 100 g/l, and the lowest possible vapor pressure (<5 mmHg @ 20°C). Each of these conditions is satisfied.

1303(b)(1): The modeling requirements do not apply to ROG emissions at this time.

1303(b)(2): ROG: This project is exempt from offset requirements, as there is no VOC emission increase from this facility since the two presses that will replace two existing functionally identical presses, and all three press will be included under the existing facility VOC emissions cap.

1303(b)(4): The facility is expected to be in full compliance with all applicable rules and regulations of the District.

RULE 1401 This equipment is subject to the March 7, 2008, version of this rule. The TACs in the graphic arts materials used in this equipment include ammonia (CAS no. (7664-41-7), ethylene glycol (CAS no. 107-21-1), ethylene glycol butyl ether (EGBE, CAS no. 111-76-2) and isopropyl alcohol (CAS no. 67-63-0). A worst case analysis (i.e. maximum usage) as shown in the Rule 1401 calculations and attached Tier 2 screening analysis indicates that both HIA and HIC are below 1.0. There are no carcinogenic compounds present.

Regulation XXX:

This facility is not in the RECLAIM program. The proposed project is considered as a "de minimis significant permit revision" to the Title V permit for this facility.

Rule 3000(b)(6) defines a "de minimis significant permit revision" as any Title V permit revision where the cumulative emission increases of non-RECLAIM pollutants or hazardous air pollutants (HAPs) from these permit revisions during the term of the permit are not greater than any of the following emission threshold levels:

Air Contaminant	Daily Maximum (lbs/day)
HAP	30
VOC	30
NOx	40
PM10	30
SOx	60
CO	220

To determine if a project is considered as a "de minimis significant permit revision" for non-RECLAIM pollutants or HAPs, emission increases for non-RECLAIM pollutants or HAPs resulting from all permit revisions that are made after the issuance of the Title V renewal permit shall be accumulated and compared to the above threshold levels. This proposed project is the 2nd permit revision to the Title V renewal permit issued to this facility on March 26, 2006. The table below summarizes the cumulative emission increases resulting from all permit revisions since the Title V renewal permit was issued:

Title V Permit Revisions Summary

	Revision	HAP	VOC	NO_x	PM_{10}	SO_x	CO
1st	1st Permit Revision: Installation of a heat-set lithographic printing press (A/N 465235)	0	0	0	0	0	0
2nd	P/C to P/O upgrade (administrative) for lithographic printing press (A/N 459677) and regenerative thermal oxidizer (A/N 444084)	0	0	0	0	0	0
	P/O no P/C, Installation of three IR/UV dry lithographic printing presses (A/Ns 498415, 498416 and 498417)	0	0	0	0	0	0
	Remove two presses under A/N 432788 (PO #F72166) and A/N 402452 (PO #F57166) replaced by A/Ns 498415 and 498417.	0	0	0	0	0	0
	P/O no P/C, Addition of one emergency IC engine (A/N 459677)	0	0	0	0	0	0
	P/C, Installation of one IR-dry & one heat-set litho printing press (A/Ns 511011 and 512895)	0	0	0	0	0	0
	Remove Heidelberg M300 press under A/N 474113 (PO #F93206)	0	0	0	0	0	0
Cumulative Total		0	0	0	0	0	0
Maximum Daily		30	30	40	30	60	220

Since the cumulative emission increases resulting from all permit revisions are not greater than any of the emission threshold levels, this proposed project is considered as a "de minimis significant permit revision".

CONCLUSION:

The proposed project is expected to comply with all applicable District Rules and Regulations. Since the proposed project is considered as a "de minimis significant permit revision", it is exempt from the public participation requirements under Rule 3006 (b). A proposed facility permit incorporating this permit revision will be submitted to EPA for a 45-day review pursuant to Rule 3003(j). If EPA does not have any objections within the review period and upon completion of the Rule 212 public notice, then a revised Title V permit will be issued to this facility with P/Os for these three presses.